

Appl. No. 09/380,337
 Supplemental Amdr. dated August 29, 2007

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) An isolated *MEN1* gene, wherein said *MEN1* gene encodes a protein having the amino acid sequence of SEQ ID NO:2.

2. (cancelled)

²
~~β.~~ (currently amended) ~~An The isolated *MEN1* gene of claim 1, nucleic acid comprising wherein the *MEN1* gene comprises~~ SEQ ID NO:1.

³
~~A.~~ (previously presented) The isolated *MEN1* gene of claim 1, wherein the *MEN1* gene comprises SEQ ID NO:3.

5.-23. (cancelled)

⁴
~~24.~~ (currently amended) A kit for detecting in a test sample the presence or absence of a mutation in a *MEN1* gene having the sequence of SEQ ID NO:3, the kit comprising:

a) ~~a container holding an oligonucleotide sequence that binds hybridizes~~ to a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3; and

b) ~~a container holding a reagent for detecting the formation of a duplex between the gene and the oligonucleotide first nucleotide sequence.~~

25. (cancelled)

⁴
⁵
~~26.~~ (currently amended) The kit of claim ~~24~~⁴, further comprising amplification primer pairs specifically binding hybridizing to a human *MEN1* gene, SEQ ID NO:3 having the sequence of SEQ ID NO:3.

Appl. No. 09/380,337
Supplemental Amdt. dated August 29, 2007

PATENT

27.-29. (cancelled)

⁶
~~30.~~ (currently amended) An transfected isolated cell ~~in vitro~~, wherein the cell comprises ~~a~~ comprising the nucleic acid of claim 1.

31. (cancelled)

⁷
~~32.~~ (currently amended) The transfected isolated cell of claim ~~30~~⁶, wherein the nucleic acid comprises ~~a nucleic acid as set forth in SEQ ID NO:1 or SEQ ID NO:3.~~

⁸
~~33.~~ (currently amended) The isolated ~~transfected~~ cell of claim ~~30~~⁶, wherein the cell is a human cell.

34.-35. (cancelled)

⁹
~~36.~~ (currently amended) An expression cassette comprising ~~a~~ the nucleic acid of claim 1, wherein the nucleic acid is operably linked to a promoter.

¹⁰
~~37.~~ (original) The expression cassette of claim ~~36~~⁹, further comprising an expression vector.

38.-42. (cancelled)

¹¹
~~43.~~ (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

a) contacting the nucleic acid sample with an oligonucleotide probe to the target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3; and,

Appl. No. 09/380,337
Supplemental Amdt. dated August 29, 2007

PATENT

b) detecting the formation of a duplex between the gene target region and the oligonucleotide; wherein a change in the formation of the duplex in comparison to formation of a control duplex comprising the oligonucleotide and the wildtype target region of SEQ ID NO:3 is indicative of the presence of the mutation.

44. (cancelled)

¹²
45. (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

incubating the nucleic acid sample in an amplification reaction comprising primers that amplify the target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3;

contacting the amplified product with an oligonucleotide probe to the amplified target region of SEQ ID NO:3; and,

detecting the formation of a duplex between the amplified product and the oligonucleotide probe; wherein a change in the formation of the duplex in comparison to formation of a control duplex comprising the oligonucleotide and the wildtype target region of SEQ ID NO:3 is indicative of the presence of the mutation.

46. (cancelled)

¹³
47. (currently amended) A method for detecting the presence or absence of a mutation in a target region in exon 2, 3, 4, 5, 6, 7, 8, 9, and/or 10 of SEQ ID NO:3 in a nucleic acid sample, the method comprising:

incubating the nucleic acid sample from the individual in an amplification reaction comprising primers that amplify a target region of SEQ ID NO:3; and

determining the sequence of the target region.

¹⁴
48. (new) An isolated cell comprising the nucleic acid of claim 3.

Appl. No. 09/380,337
Supplemental Amdt. dated August 29, 2007

PATENT

¹⁵
~~47~~. (new) The isolated cell of claim ¹⁴~~48~~, wherein the cell is a human cell.

¹⁶
~~50~~. (new) An expression cassette comprising the nucleic acid of claim ¹⁵~~51~~,
wherein the nucleic acid is operably linked to a promoter.

¹⁷
~~51~~. (new) The expression cassette of claim ¹⁶~~52~~, further comprising an
expression vector.